

Smart Metering in Europe



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Two thirds of the energy meters in Europe will be smart by 2025

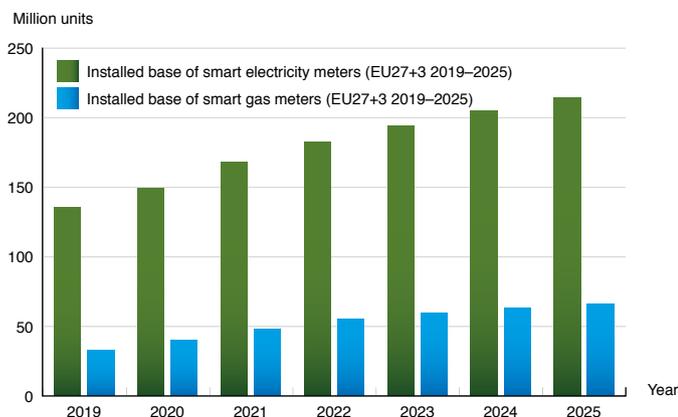
Smart meters accounted for around 82 percent of the total electricity meter shipments in 2019. France was the largest market by volume with annual shipments of nearly 8 million units. Italy is now in the midst of its second-wave rollout and was by far the second largest market with nearly 6 million units installed during the year. Approximately 45 percent of the electricity customers in EU27+3 had a smart meter at the end of 2019 and the penetration rate is expected to reach 69 percent by 2025. Temporarily postponed installations due to COVID-19 are expected to have a negative effect on smart meter shipments in 2020, though the lost volumes are expected to be recuperated during 2021–2022. Annual smart meter shipments will reach a peak of around 26 million units in 2021, underpinned by the post-Corona acceleration of ongoing projects as well as the completion of major first-wave rollouts in countries such as France and the Netherlands along with second-wave deployments in Italy and Sweden. The majority of new installations will take place in France and the UK, with significant contributions also coming from countries such as Austria and the Netherlands, and later also Poland and Greece.

While rollouts in many countries in Western Europe and the Nordics are now either well-advanced or largely completed, the focus is increasingly shifting to Central and Eastern Europe. The outlook for the region is now starting to improve with legislation for full-scale or partial rollouts now in place or pending in a number of countries. Overall, the CEE region is expected to account for as much as 46 percent of annual EU27+3 smart meter shipments in 2025, up from 9 percent in 2019. Second-wave rollouts will also constitute a major growth market during the coming years with Italy now in the midst of its metering upgrade and utilities in Sweden and Finland about to start rollouts during 2020–2021. Second-wave rollouts are expected to account for 30–35 percent of total annual smart meter shipments in the region during the next few years. Next to follow with rollouts of second-generation metering systems in the 2020s will likely be early movers such as Spain, Norway and Denmark.

The rapid development of new wireless technologies for IoT communications has a major impact on the smart metering market in Europe. DSOs planning for new smart grid projects and rollouts in the 2020s have a wide range of increasingly sophisticated wireless technologies to choose from for their networking platforms. ►

► Wireless technologies have major advantages compared to PLC technologies which dominated the first wave of smart electricity deployments in Europe. Supported by massive R&D investments in the mobile communications industry, 3GPP-based LPWA technologies such as NB-IoT and LTE-M are gaining traction in the utilities space. Optimized for cost-sensitive and mission-critical IoT applications, these technologies eliminate some of the main drawbacks which have held back wider adoption of cellular communications in the smart metering space. Several major deployments utilising the two technologies are now underway or about to begin in the Benelux and the Nordics. NB-IoT and LTE-M connected smart meters accounted for less than 1 percent of European smart meter shipments in 2019. The share is however expected to increase to more than 20 percent in 2025. Adoption of these technologies is nevertheless not expected to be uniform, with adoption more likely among small- to mid-sized utilities in the coming few years.

Adoption of smart metering is also growing fast in the European gas distribution market. Berg Insight estimates that annual shipments of smart gas meters in the EU27+3 reached 8.5 million units in 2019. Demand will remain stable at 7–8 million units per year until 2022, after which shipments are expected to gradually decrease following the completion of several nationwide rollouts. Italy was the largest market in 2019 with yearly shipments of 3.9 million units while France accounted for 2.3 million units. While shipments will decrease in Italy from 2019 and onwards, yearly shipments in France will stay at around 1.8–2.4 million units per year before dropping in 2023. After multiple delays, the UK market is expected to gradually ramp up smart gas meter installations to reach a peak of 3.4 million units in 2022. The Netherlands will moreover see volumes of just below 1.0 million units until 2021 before dropping as a result of the completion of the nationwide rollout. A number of small- and mid-sized countries, including Belgium, Ireland, Lithuania and Greece, will account for an increasing share of annual smart gas meter shipments throughout the forecast period. Overall, the penetration of smart energy meters (electricity and gas) is expected to reach 65 percent in 2025, up from 40 percent in 2019.



This report answers the following questions:

- Which are the major trends shaping the European smart metering market?
- What are the differences between projects in Western Europe and Eastern Europe?
- Which European countries are next in line for large-scale rollouts?
- What is the current status and outlook for second-wave smart metering rollouts in Europe?
- Which new projects use NB-IoT and LTE-M cellular communications?
- How is the regulatory environment for smart metering evolving on the national level?
- Which are the leading suppliers of smart metering solutions for the European market?
- Which countries lead the adoption of smart gas meters?

Executive Summary

1 Electricity, gas and district heating markets in Europe

- 1.1 Energy industry players
- 1.2 Electricity market
- 1.3 Gas market
- 1.4 District heating market

2 Smart metering solutions

- 2.1 Introduction to smart grids
- 2.2 Smart metering
 - 2.2.1 Smart metering applications
 - 2.2.2 Smart metering infrastructure
 - 2.2.3 Benefits of smart metering
- 2.3 Project strategies
 - 2.3.1 System design and sourcing
 - 2.3.2 Rollout and integration
 - 2.3.3 Implementation and operation
 - 2.3.4 Communicating with customers
- 2.4 Regulatory issues
 - 2.4.1 Models for the introduction of smart meters
 - 2.4.2 Standards and guidelines
 - 2.4.3 Individual rights issues

3 IoT networks and communications technologies

- 3.1 IoT network technologies
 - 3.1.1 Network architectures
 - 3.1.2 Unlicensed and licensed frequency bands
- 3.2 PLC technology and standards
 - 3.2.1 International standards organisations
 - 3.2.2 G3-PLC
 - 3.2.3 PRIME
 - 3.2.4 Meters & More
 - 3.2.5 OSGP
- 3.3 3GPP cellular and LPWA technologies
 - 3.3.1 2G/3G/4G/5G cellular technologies and IoT
 - 3.3.2 The role of cellular networks in smart meter communications
 - 3.3.3 NB-IoT and LTE-M network deployments in Europe
 - 3.3.4 LoRa
 - 3.3.5 Sigfox
- 3.4 RF technology and standards
 - 3.4.1 IEEE 802.15.4
 - 3.4.2 Wi-SUN
 - 3.4.3 Proprietary IPv6 connectivity stacks based on 802.15.4
 - 3.4.4 Wize

4 Smart metering industry players

- 4.1 Meter vendors
 - 4.1.1 Itron
 - 4.1.2 Landis+Gyr
 - 4.1.3 Honeywell
 - 4.1.4 Aclara
 - 4.1.5 ADD Grup
 - 4.1.6 AEM
 - 4.1.7 Aidon
 - 4.1.8 Apator
 - 4.1.9 Circutor
 - 4.1.10 Diehl Metering
 - 4.1.11 EDMl
 - 4.1.12 EFR
 - 4.1.13 Elgama Elektronika
 - 4.1.14 EMH Metering
 - 4.1.15 Flonidan
 - 4.1.16 Hager
 - 4.1.17 Hexing Electrical
 - 4.1.18 Iskraemeco

- 4.1.19 Kaifa Technology
- 4.1.20 Kamstrup
- 4.1.21 Linyang Energy
- 4.1.22 MeteRSit
- 4.1.23 Networked Energy Services
- 4.1.24 NIK
- 4.1.25 Pietro Fiorentini
- 4.1.26 RIZ
- 4.1.27 Sagemcom
- 4.1.28 Sanxing Electric
- 4.1.29 Wasion
- 4.1.30 ZIV
- 4.1.31 ZPA Smart Energy
- 4.2 Communications solution providers
 - 4.2.1 APKAPPA
 - 4.2.2 CyanConnode
 - 4.2.3 Devolo
 - 4.2.4 NURI Telecom
 - 4.2.5 Ormazabal
 - 4.2.6 Power Plus Communications
 - 4.2.7 Sensus
 - 4.2.8 Toshiba
 - 4.2.9 Trilliant
- 4.2.10 Xemex
- 4.3 Software solution providers
 - 4.3.1 Avance Metering
 - 4.3.2 Atlantica Digital
 - 4.3.3 Cuculus
 - 4.3.4 Hansen Technologies
 - 4.3.5 Ferranti
 - 4.3.6 Görlitz
 - 4.3.7 Kisters
 - 4.3.8 Oracle
 - 4.3.9 Robotron Datenbank-Software
 - 4.3.10 SAP
 - 4.3.11 Telecontrol STM
- 4.4 System integrators and communications service providers
 - 4.4.1 A1 Telekom Austria
 - 4.4.2 Arkessa
 - 4.4.3 Arqiva
 - 4.4.4 Atos
 - 4.4.5 Capgemini
 - 4.4.6 CGI
 - 4.4.7 Com4
 - 4.4.8 Greenbird Integration Technology
 - 4.4.9 IBM
 - 4.4.10 LG CNS
 - 4.4.11 Schneider Electric
 - 4.4.12 Siemens
 - 4.4.13 Telecom Italia
 - 4.4.14 Telefónica
 - 4.4.15 Telia Company
 - 4.4.16 Utility Connect
 - 4.4.17 Vodafone

5 Market profiles

- 5.1 Regional summary
 - 5.1.1 EU energy strategy
 - 5.1.2 EU smart metering policies
 - 5.1.3 Smart metering policies on the national level
 - 5.1.4 Top smart metering projects in EU27+3 countries
- 5.2 Austria
- 5.3 Belgium
- 5.4 Bulgaria
- 5.5 Croatia
- 5.6 Cyprus
- 5.7 Czech Republic
- 5.8 Denmark
- 5.9 Estonia
- 5.10 Finland
- 5.11 France

- 5.12 Germany
- 5.13 Greece
- 5.14 Hungary
- 5.15 Ireland
- 5.16 Italy
- 5.17 Latvia
- 5.18 Lithuania
- 5.19 Luxembourg
- 5.20 Malta
- 5.21 Netherlands
- 5.22 Norway
- 5.23 Poland
- 5.24 Portugal
- 5.25 Romania
- 5.26 Slovakia
- 5.27 Slovenia
- 5.28 Spain
- 5.29 Sweden
- 5.30 Switzerland
- 5.31 United Kingdom

6 Case studies: Smart metering projects in Europe

- 6.1 Enel
 - 6.1.1 Enel Open Meter and the second-generation rollout in Italy
 - 6.1.2 Endesa's smart metering project in Spain
 - 6.1.3 Smart meter rollout in Romania
- 6.2 Enedis
 - 6.2.1 The Linky Programme
 - 6.2.2 System development and large-scale pilot
 - 6.2.3 Full-scale rollout
- 6.3 E.ON & Innogy
 - 6.3.1 Sweden
 - 6.3.2 Germany
 - 6.3.3 United Kingdom
 - 6.3.4 Central Eastern Europe
- 6.4 Current smart meter projects in four European countries
 - 6.4.1 Austria – Wiener Netze
 - 6.4.2 Belgium – Fluvius
 - 6.4.3 Ireland – ESB Networks
 - 6.4.4 Lithuania – ESO
- 6.5 Smart gas meter rollouts in France and Italy
 - 6.5.1 GrDF
 - 6.5.2 2i Rete Gas
- 6.6 Smart meter communications platforms in Germany and the UK
 - 6.6.1 Germany
 - 6.6.2 United Kingdom
- 6.7 Smart metering in Russia & CIS and the Balkans

7 Market forecasts and trends

- 7.1 Market trends
 - 7.1.1 Second-wave rollouts to account for a substantial share of shipments
 - 7.1.2 Central Eastern Europe slowly gains momentum as outlooks brighten
 - 7.1.3 DSOs increasingly consider NB-IoT and LTE-M in the 2020s
 - 7.1.4 Making smart metering systems secure by design
 - 7.1.5 Rethinking the smart metering offering to respond to emerging utility needs
- 7.2 Smart electricity metering market forecast
 - 7.2.1 Capital expenditure forecast
 - 7.2.2 Communications technology market shares
- 7.3 Smart gas metering market forecast

Glossary

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